

Notice of Allowability

Application No.

10/723,752

Examiner

Nghia M. Doan

Applicant(s)

GOREN ET AL.

Art Unit

2825

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to Application filed on 11/26/2003 and Applicant Argument filed on 01/05/2006.
2. ☒ The allowed claim(s) is/are 1-21.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413), Paper No./Mail Date 20060226.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

VUTHE SIEK
PRIMARY EXAMINER

DETAILED ACTION

1. Responsive to communication application 10/723,752 filed on 11/26/2003 and Applicant Argument filed on 01/05/2006, claims 1-24 are pending.
2. The replacement drawings are approved.
3. The specification amended is approved.

EXAMINER'S AMENDMENT

4. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Attorney Suzanne Erez, Registration No. 46,688 on February 22nd 2006.

The application have been amended as following:

Claim 1, line 10, after "extracting" inserts "circuit".

Claim 1, line 11, after "extracted" inserts "circuit".

Claim 4, line 1, before "at least a subset" changes ", for" to "the critical interconnect line comprising: ".

Claim 5, line 1, before "at least a subset" changes ", for" to "the critical interconnect line comprising: ".

Claim 6, line 1, before "at least a subset" changes ", for" to "the critical interconnect line comprising: ".

Claim 6, line 2, after "extracting" inserts "circuit".

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Claim 11, line 2, after "extracted" inserts "circuit".

Claim 12, line 8, after "extracting" inserts "circuit".

Claim 12, line 9, after "extracted" inserts "circuit".

Claim 20, line 2, after "extracted" inserts "circuit".

Claim 21, line 10, after "extracting" inserts "circuit".

Claim 21, line 11, after "extracted" inserts "circuit".

Claims 22-24 are canceled.

Allowable Subject Matter

5. Claims 1-21 are allowed.

6. The following is an examiner's statement of reasons for allowance: the prior art of record does not teach or suggest as exemplary of claim 1, a method for designing an integrated circuit, the method comprising the steps of: defining a preliminary design of the integrated circuit; identifying critical interconnect lines in the preliminary design; identifying any critical interconnect lines affected by crossing lines in the preliminary design; defining a transmission line model to represent each critical interconnect line; defining a layout design of the integrated circuit, comprising circuit components and parameters thereof, using said preliminary design and said transmission line model for each critical interconnect line; and extracting circuit component parameters from the layout design for simulation of the design using the extracted circuit component parameters; wherein for each transmission line model representing a critical interconnect line affected by a crossing line, the method includes providing an environment terminal, comprising a connection to the model via at least one circuit

component representing the effect of the crossing line on the model, and connecting the environment terminal to the crossing line in the integrated circuit design.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Chang et al. (US. 6,381,730) discloses method and system extracting parasitic from RLC network for accurate modeling and timing analysis for a circuit design layout; Yamada (US. 6,374,391) estimating a parasitic capacitance coupling to per unit length of conductor in a circuit design.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nghia M. Doan whose telephone number is 571-272-5973. The examiner can normally be reached on 8:30-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jack Chiang can be reached on 571-272-7483. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.

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For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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